PROCEEDINGS

OF THE

BIOLOGICAL SOCIETY OF WASHINGTON

NOTES ON NORTH AMERICAN SPIDERS HERETO-FORE REFERRED TO COELOTES.

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A study of the genotype of Coelotes, C. atropos (Walckenaer), shows that it posesses characters of generic rank separating it from the American species heretofore placed with it. I find that no known North American species is a true Coelotes. Simon rightly made a new genus for the Tegenaria medicinalis of Hentz, but the genus includes as well several other species that have commonly been referred to Coelotes. The other species referred to Coelotes constitute a clearly defined genus for which a name is proposed below. There has been considerable confusion of species. The following list indicates the names regarded as valid and the place assigned to those found to be synonyms. All species previously referred to Coelotes and Coras are included, but only the single species of Cicurina which is known to have been confused with Coelotes.

Genus Wadotes, gen. nov.

Wadotes dixiensis, sp. nov. Wadotes carolinus, sp. nov.

Wadotes bimucronatus (Simon).

Wadotes calcaratus (Keyserling).

Coelotes longitarsus Emerton (in part).

Coelotes nigriceps Banks.

Wadotes hybridus (Emerton).

Coelotes altilis Banks.

Genus Coras Simon.

Coras medicinalis (Hentz).

Coelotes urbanus Keyserling. Coelotes lamellosus Keyserling.

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Coras juvenilis (Keyserling). Coelotes longitarsus Emerton (in part). Coelotes fidelis Banks. Coelotes lineatus Banks. Coras montanus Emerton.

Coras taugynus, sp. nov.

Genus Cicurina Menge.

Cicurina arcuata Keyserling. Cicurina complicata Emerton. Coelotes longitarsus Emerton (in part). Coelotes gnavus Banks.

Wadotes, gen. nov.

The species of this genus may be readily distinguished from the other American species heretofore referred to Coelotes and Coras in having the lower margin of the furrow of the chelicera armed with two teeth instead of three and in having the anterior median eyes much smaller than the laterals. Differences perhaps more important than these exist in the copulatory organs. In the epigynum there is a median piece attached anteriorly but projecting freely as a tongue or scape posteriorly, this being distinctive of the genus. In the palpus of the male, aside from structural differences in the bulb which will not be entered into here, the species may be recognized by the presence on the caudal end of the tarsus of two caudally projecting horns or processes, both of which may be well developed, as in W. bimucronatus and W. dixiensis, or one of which may greatly exceed the other, as in W. calcaratus. The legs are shorter than in Coras and in consequence the spines, e. g., of the anterior tibiae are closer together.

Genotype.—Wadotes dixiensis, sp. nov.

Wadotes dixiensis, sp. nov.

Related rather closely to W. bimucronatus (Simon). Simon in his original description says of the male palpus: "tarso magno ovato, supra ad basim tuberculis validis geminatis binis retro directis (exteriore obtuso, interiore acuto) insigniter instructo." He gives a figure of the right palpus in ectal view in agreement with this description in his Hist. Nat. Araign. II, p. 249 The present species differs in having the tarsal processes shorter and, when seen in view corresponding to that of Simon's figure, broader at the base; the outer process distally bluntly rounded, the inner one more narrowly rounded; viewed from dorsomesal side the inner process is of nearly the same breadth throughout and is distally more bluntly rounded, while the outer process appears strongly narrowed distad, with its apex bent a little mesad. The patellar apophysis is straight, its distal edge oblique, the process not curved as it is in bimucronatus.

The length of the holotype, a male, is 9.5 mm. as against 6 mm. for bimucronatus.

Holotype.—M. C. Z. 1355.

Locality.—Alabama: Auburn. One male.

Wadotes carolinus, sp. nov.

The tarsus of the male palpus in this species has the processes both strongly developed as in the preceding species and bimucronatus. These processes are longer and proportionately narrower at base than in dixiensis. In ectal view both processes are distally rounded, the mesal one more narrowly so than the outer; the outer process appearing a little curved with dorsal edge more convex than the ventral. In mesodorsal view the outer process is much broader than the inner one, a little curved outward, its apex rounded; the inner process also a little curved outward but less evenly, being weakly bisinuous. The patellar process small and straight.

This is also a larger species than bimucronatus, the type being 8 mm. long.

Holotype.-M. C. Z. 1356.

Locality.—North Carolina: Tryon. One male taken by W. M. Wheeler in Nov., 1913.

Wadotes bimucronatus (Simon).

Coelotes bimucronatus Simon, Ann. Soc. Ent. Belg., 1898, 42, p. 6; Hist. Nat. Araign., 1898, II, p. 249, f. 246.

Locality.—North Carolina.

Known only from the type, which is a male.

Wadotes calcaratus (Keyserling).

Coelotes calcaratus Keyserling, Verh. zool. bot. Ges. Wien. 1887, 37, p. 470, pl. 6, f. 32.

Coelotes longitarsus Emerton (male, but not female, figures), Trans. Conn. Acad. Sci., 1889, 7, p. 192, pl. 7, fig. 2.

Coelotes nigriceps Banks, Journ. New York Ent. Soc., 1895, 3, p. 82.

Examination of the types of *C. longitarsus* of Emerton shows that they include specimens of three species. There are a male and female of *Cicurina arcuata*, the female having been figured as that of *longitarsus*. The male figured by Emerton is *calcaratus* and may be regarded as the holotype, since Emerton himself places his species as a synonym of Keyserling's. Thirdly, there is a female of *Coras juvenilis* Keyserling.

The types of C. nigriceps Banks are females of the present species.

Coelotes gnavus Banks is not the present species but Cicurina arcuata, the same as the female figured by Emerton for his longitarsus.

Localities .- D. C.: Washington.

Md.: Meyersville.

Me.

N. H.: Intervale; Fitzwilliam; Squam Lake; North Chatham.

Mass.: Newton; Waltham; Blue Hill.

Conn.: Hamden; New Haven.

New York: Ithaca; Sea Cliff; Poughkeepsie; Valcour Id.; Pearl Point.

N. C.: Black Mts.; Mt. Graybeard.

Indiana: New Harmony.

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Ky .: Mammoth Cave. Ill.: Cook Co.

Wadotes hybridus Emerton.

Coelotes hybridus Emerton, Trans. Conn. Acad. Ac., 1889, 8, p. 193, pl. 7, f. 4.

Coelotes altilis Banks, Proc. Acad. Sci. Phil., 1892, p. 25, pl. 1, f. 74; pl. 4, f. 74 a.

Localities.—New York: Chateaugay Lake, Adirondacks; Ithaca; Rensselaer; Altamont; Bronx Park; Rochester; Glen Haven; New Salem; East Onandaga; Lake George; Gloversville.

N. H.: Hanover. Mass.: Magnolia.

Genus Coras Simon.

Hist. Nat. Araign., 1898, 2, p. 258.

Only the genotype, Tegenaria medicinalis of Hentz, has heretofore been referred to Coras; but a study of species referred to Coelotes shows that the forms listed below are plainly congeneric with medicinalis, while not one of the known American species is truly congeneric with atropos, the type of the genus Coelotes. Species of Coras in the female sex, aside from the differences in eyes, such as the large size of the anterior medians, differ from Wadotes in the form of the epigynum. This presents a variously developed median septum or plate but never a free tongue as present in Wadotes; it also uniformly presents at each anterolateral corner a spine or tooth which ordinarily projects mesocaudad, more rarely caudad or mesad. A somewhat similar tubercle is present in species of Coelotes of Europe, but the tubercle occurs laterally rather than anteriorly or at anterolateral corner. The males of Coras differ from those of Wadotes in not having the tarsus of palpus with two caudal processes as well as in the form of patellar and tibial apophyses and particularly in the structure of the bulb which can not be entered into at this time. In both sexes the anterior median eyes are as large as or larger than the anterior laterals rather than much smaller as is the case in Wadotes.

Coras medicinalis (Hentz).

Tegenaria medicinalis Hentz, Jour. Acad. Sci. Phil., 1821, 2, p. 53, pl. 5, f. 1; Jour. Boston Soc. Nat. Hist., 1847.

Coelotes urbanus Keyserling, Verh. zool. bot. Ges. Wien, 1887, 37, p. 467, pl. 6, f. 31.

Coelotes lamellosus Keyserling, op. cit., 1887, 37, p. 469, pl. 6, f. 30.

Localities.—Mass.: Boston; Newton; Sharon; Swampscott.

Rhode Id.: Providence; Kingston.

New York: Ithaca; Poughkeepsie; Chateaugay Lake; Sea Cliff; Hemlock Lake.

Kans.: Manhattan.
Ill.: Cook Co.
Md.: Bay Ridge.
D. C.: Washington.
Va.: Falls Church.
Ala.: Auburn; Mobile Co.

Coras juvenilis (Keyserling).

Coelotes juvenilis Keyserling, Verh. zool. bot. Ges. Wien, 1881, 31, p. 288, pl. 11, f. 13.

Coelotes longitarsus Emerton (in part, one of female types, not illustrated), Trans. Conn. Acad. Sci., 1889, 8, p. 192.

Coelotes fidelis Banks, Proc. Acad. Sci. Phil., 1892, p. 24, pl. 41, f. 72, pl. 5, f. 72; op. cit., 1916, p. 70, pl. 10, f. 8.

Coelotes lineatus Banks, op. cit., 1892, p. 25. (Immature.)

The holotype of *C. juvenilis* is in the M. C. Z. collection. It is an immature female to be placed at once in *Coras* rather than *Wadotes* because of the presence of three teeth on the lower margin of chelicera and the large size of the anterior median eyes. Close comparison with material of corresponding age leaves no doubt that it is the same form as that indicated by the synonymy above.

Localities.—New York: Poughkeepsie; Valcour Id.; Ithaca; Binghampton; Rochester; Bath; Albany; Cayuga; Chateaugay Lake; New Middlebury; Delmar; Averil Park; Orange Co.; Crown Point; Meadowdale; Lake Bluff; Lake George; Greenville; West Berne; Rider's Mills; Voorheesville; East Onondaga.

N. H.: Intervale; Hanover.

Maine: Long Id. Ill.: Cook Co. Indiana.

Ky.: Mammoth Cave.

Coras montanus (Emerton).

Coelotes montanus Emerton, Trans. Conn. Acad. Sci., 1889, 8, p. 192, pl. 7, f. 3, 4.

Localities.—Canada: Ottawa; Newfoundland, Deer Lake, also Humber River and Old Perlican.

New York: Chateaugay Lake, Adirondacks; Ithaca. Lake Superior.

Emerton's original figure of the epigynum of this species does not show the anterior spines characteristic of species of this genus; but a close examination of the female cotype from which the figure was made shows distinct scars where such spines had been broken off, possibly by scraping of the epigynum to free it of hairs as it is completely denuded of such. They are present as usual in specimens from Newfoundland and Ottawa.

Coras taugynus, sp. nov.

A species in general structure and appearance similar to *C. medicinalis* but conspicuously different in the form of the epigynum. In this there is a septum which is inversely T-shaped; the median piece is narrow behind and strongly expanded anteriorly, smooth and even throughout, not depressed anteriorly; the cross-piece extends entirely across caudal border and curves forward about each lateral end where it is thickest, and on anterior margin toward each end presents a forwardly directed tooth. There is a conspicuous spine at each antero-lateral corner which projects obliquely caudomesad over the fovea and is acutely acuminate from base to apex, this spine proportionately much larger than the corresponding one of *medicinalis*.

Holotype.-M. C. Z. 1257.

Localities.—N. C.: Black Mts. (type loc.), four females; Tryon, one female.

Genus Cicurina Menge.

Preuss. Spinn., 1869, 3, p. 271.

Cicurina arcuata Keyserling.

Cicurina arcuata Keyserling, Verh. zool. bot. Ges. Wien, 1887, 37, p. 460, pl. 6, f. 25.

Cicurina complicata Emerton, Trans. Conn. Acad. Sci., 1889, 8, p. 195, pl. 7, f. 7, 7a, 7b.

Coelotes longitarsus Emerton (in part), Trans. Conn. Acad. Sci., 1889, 8, p. 192, pl. 7, f. 2a.

Coelotes gnavus Banks, Proc. Acad. Sci. Phil., 1892, p. 26.

In addition to the female of this species which Emerton figures as that of his *Coelotes longitarsus* as indicated above, there is a male of the species among Emerton's type specimens.